

### **REMARKS**

The invention defined by the claims under examination in this application is directed to a storage stable reactant formulation especially intended for in-mold polymerization. The reactant formulation of the new claim 80 comprises a monomer and a procatalyst as defined therein. The reactant formulation of claim 79 comprises a monomer and an activator salt as defined therein. It is important to keep in mind that each of these formulations are storage stable and must be manufactured separately, must be stored separately and only after combining, as is well known to those skilled in the art, polymerization of the monomer(s) will take place in a mold producing a desired product.

It is noted that according to the above amendment, claims 33 and 78 have been canceled and replaced with claim 80 which, in effect, combines the canceled claims 33 and 78, with some amendments as discussed below. The term "storage stable" was inserted before "reactant" which is supported in the specification on page 11, lines 15-20. The term "for in-mold polymerization" was inserted after "formulation". This is supported in the specification in the title itself as well as on page 6, line 23, and in the general discussion on page 7 and throughout the specification. Finally, R' has been more specifically defined by listing in a Markush group the various ligands that are listed in exactly the same form on page 13, lines 1-11.

### **Claim Rejections – 35 USC § 102**

Claims 78, 33, 34, 37-40, 42, 56 and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Suld et al. (US 4,100,338). This rejection is respectfully traversed.

It is understood that the basis for this rejection, as explained in paragraph 2 of the Official Action, is that the definition of R' has been broadened by deleting the term "hydrocarbyl". For this reason, in the Examiner's opinion, the disclosure in Suld et al., especially in the examples, contains the claimed limitations. Applicants submit that the Examiner's interpretation of the disclosure in this reference is unjustified and

unreasonable in view of the description of the invention in the patent. In effect the Examiner is taking specific statements and features out of context, which is not appropriate. In any event, the new claim 80 which replaces claims 78 and 33, now specifically provides that the reactant formulation is **storage stable** and that the formulation is for **in-mold polymerization**. Furthermore, R' has been defined specifically as now recited in the Markush group.

The Suld et al. reference has no disclosure whatsoever that a nickel dihalide complex in a monomer is storage stable or that such a composition could be used for in-mold polymerization. As a matter of fact, this reference is not intended for in-mold polymerization and, therefore, none of the formulations disclosed therein are said to be usable or useful for such polymerization. The examples actually disclose solution polymerization of NBD and even if a solvent were totally eliminated, a mass polymerization would take place. There is absolutely no disclosure that would suggest preparing separate streams of formulations which could be used for in-mold polymerization. Furthermore, the catalyst disclosed in the examples or in column 1, lines 45-60, are totally different than the procatalyst defined in claim 80 because the disclosed catalysts in Suld et al. do not contain hydrogen or a "hydrocarbyl" group that is defined as R'. Thus the Examiner is using the disclosure in Suld et al., dealing with a totally different type of polymerization, and applying it to the instant claims being guided by the disclosure and claims of the present application. This is hindsight reconstruction of the claimed invention which is clearly not permitted by the courts. On which disclosure in the reference is the Examiner relying to conclude that the claimed composition is anticipated by Suld et al. or is obvious over said reference?

It is submitted that the rejection under § 102 of claims 80 and the dependent claims 34-40, 42, 43, and 56-59 is totally unjustified because the Suld et al. reference does not even deal with reactant formulations that could be used in in-mold polymerization. Furthermore, it is submitted that said claims could not be properly rejected even under § 103 because there is no disclosure whatsoever in this reference that in-mold polymerization is intended or could be accomplished employing the

disclosed monomers and catalysts nor is there any disclosure that would motivate one skilled in the art to modify the catalyst disclosed in the reference to obtain the procatalyst defined in claim 80. Furthermore, there is no motivation to prepare two separate streams that could be employed for in-mold polymerization. For these reasons, any rejection of said claims over the Suld et al. reference is improper. Consequently, this rejection should be withdrawn.

### **Claims Rejection – 35 USC § 103**

Claims 78, 79, 33-42, 45-51 and 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. (US 5,629,398). This rejection is respectfully traversed.

The Examiner explains that the Okamoto et al. reference discloses polymerization of cyclic olefins, including monomers that are norbornadienes. Furthermore, the reference also discloses transition metal complexes which include nickel and palladium and cocatalyst salts. The Examiner further states that the reference notes that each component can be combined with monomer prior to the polymerization. Thus, the Examiner concludes that one of ordinary skill in the art would be motivated to use the claimed method to polymerize said monomers.

The Examiner's reasoning is totally unjustified and not supported by the disclosure or teachings in the Okamoto et al. reference. First of all, it must be noted that this reference deals with a polymerization that is non-analogous to the polymerization intended when the two reactant formulations claimed instantly are combined. The entire disclosure of the Okamoto et al. patent deals with bulk polymerization and solution polymerization although suspension polymerization is also mentioned (col. 13, lines 20-22). All the examples in this reference deal with solution and bulk polymerizations. The instant claims are directed to reactant formulations that are useful for in-mold polymerization which is dramatically different from solution or bulk polymerization. The latter types of polymerizations do not have separate reactant formulations or reactant streams which, when combined, polymerize quickly. This is

clearly noted in the specification on page 6, line 21, to page 7, line 10. Solution and bulk polymerization generally take a considerable amount of time to polymerize and the components of the catalyst system are added differently than in in-mold polymerization. Because of such dramatic differences between these types of polymerizations, it is inappropriate to apply the disclosure dealing with solution or bulk polymerization to in-mold polymerization.

The Okamoto et al. reference does not disclose the formation of two separate reactant formulations, adding a procatalyst to one formulation and an activator to the other formulation or that these two formulations are storage stable. How does the disclosure in col. 12, lines 5-7 (that the components can be added to monomers or a solvent before solution or bulk polymerization) motivate one skilled in the art to prepare separate reactant formulations that are storage stable? It is submitted that the Examiner is employing hindsight reconstruction of the claimed invention using Applicants' disclosure to conclude that the claimed formulations would be obvious. However, this is simply a conclusionary statement without any support or motivation in the reference for reaching such a conclusion. If the Examiner maintains this rejection, it is requested that he identify the specific passages of disclosure in the reference that would suggest the formation of two separate reactant formulations which would be storage stable and would be useful for in-mold polymerization.

Applicants wish to note that in the decision of *In re Gorman*, 18 USPQ2d 1885, the Court of Appeals for the Federal Circuit stated that in determining obviousness, one of the criteria is whether the references employed are in fields which are the same as or analogous to the field of the claimed invention, and whether the teaching in such references would, taken as a whole, have made the invention obvious to a person skilled in that field. In that decision the Court also stated "It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the Applicants' structure as a template and selecting elements from references to fill the gaps." In *re Fine*, 5 USPQ2d 1596, the Federal Circuit Court stated that a rejection for obviousness within the PTO must be supported by a teaching or suggestion within the

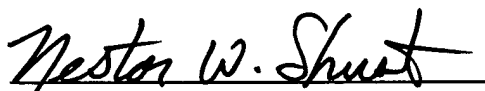
reference to arrive at the claimed invention. Applicants submit that the present rejection does not comply with the above referred to decisions of CAFC since the reference and the claimed invention do not belong to analogous technology and a conclusion of obviousness is not supported by the teachings in the reference. Consequently the rejection over the Okamoto et al. reference should be reconsidered and withdrawn.

For the above-stated reasons, and in view of the amendments submitted herewith, it is submitted that now all pending claims are in condition for allowance. Reconsideration and a Notice of Allowance are respectfully requested.

Applicants note that the Examiner indicated that claims 43, 52-54 and 59 would be allowable if they were written in independent form. It is submitted that for the above explained reasons, the base claims, on which the above claims depend, upon reconsideration should be allowable. Therefore, the objection that the above claims depend upon a rejected claim should be withdrawn.

Respectfully submitted,

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